

# Quality Misuse

*position paper*

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1st slide

Quality Misuse

- 1. Overview
- 2. Related work
- 3. Concepts
- 4. Method
- 5. Case Study
- 6. Discussion

*people*

User/  
Customer

Requirements  
Engineer

Software Architect,  
Developer

Environment

*product*

Needs

Specification

Design/  
Architecture



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- ◆ Our **aim** is:
  - Systematic and concrete NFR elicitation
  - integrated with FRs
- ◆ Initial **idea**: application of Misuse Cases to quality attributes other than security/ safety
- ◆ **What is new?** clear definitions of concepts as basis for systematic and concrete method
- ◆ **Status**:
  - Generalization and complementation of Misuse Case concepts necessary -> definitions
  - Method developed
  - First case study
  - Concepts + method now open to discussion and further improvement



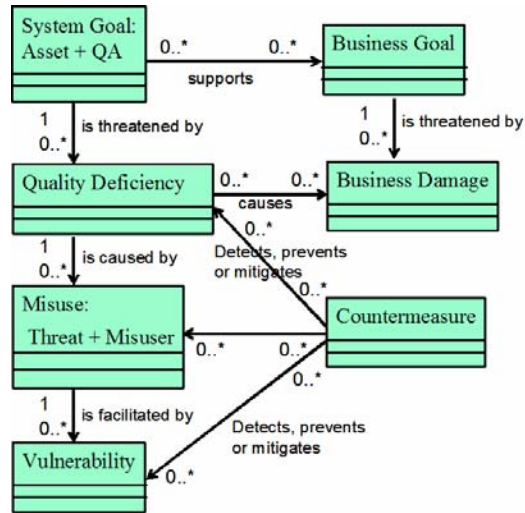
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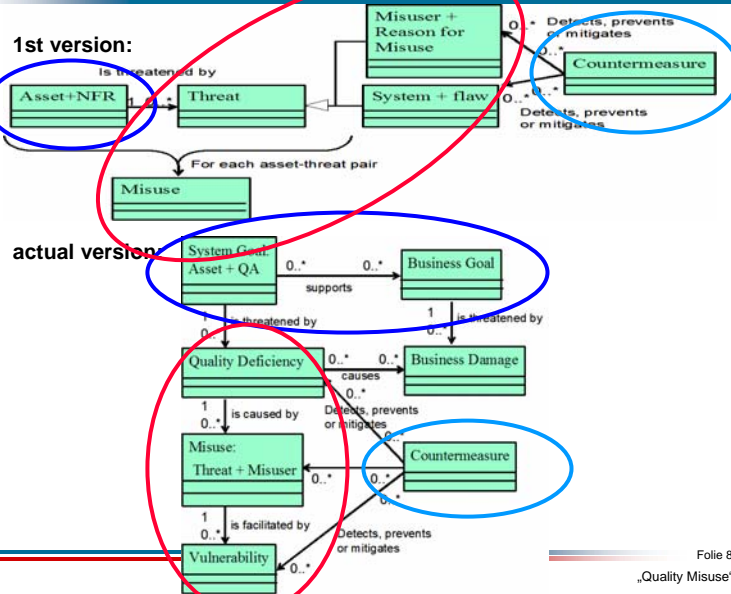
### Generalizations necessary to Misuse Case concepts

- ◆ An asset is to be protected from a threat, and for doing so, countermeasures are defined. (=general principle behind our literature sources)
- ◆ Assets pairwise with a defined quality attribute (QA)
- ◆ Misuser not necessarily has misuse goal
- ◆ Views: intruders to the system, but also customer, maintainer and developers, end-users, administrators
- ◆ Scenarios (see ATAM):
  - use case scenarios
  - growth scenarios
  - exploratory scenarios, see QA = security

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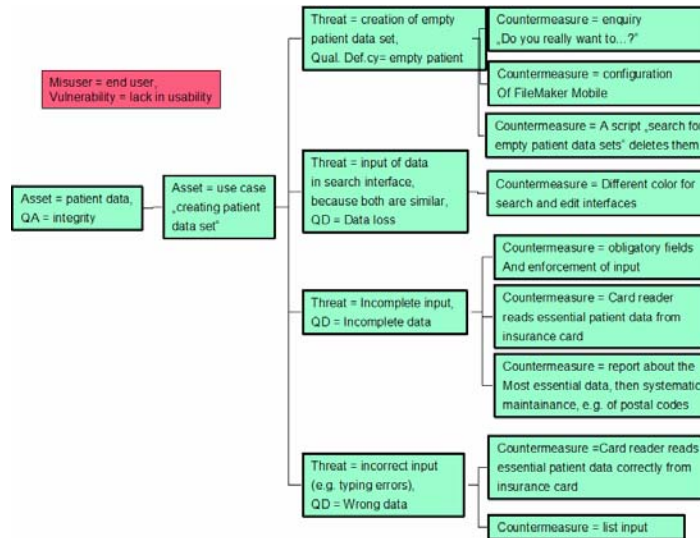


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## Case Study

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## Further Research

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- ◆ Further case studies, e.g.: How well does the method work for a system which does not yet exist?
- ◆ Improvement of method and checklists
- ◆ Include risks, e.g. probabilities
- ◆ Conflict identification and negotiation, e.g. conflicts among QAs and among countermeasures

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- ◆ Which quality features are addressed by the paper?  
*Non-functional requirements = quality requirements*
- ◆ What is the main novelty/contribution of the paper?  
*Definitions: Integration of different, but similar terminologies*
- ◆ How will this novelty/ contribution improve RE practice or RE research? *Practice: integration of FR and NFR derivation, one method for all QAs; science: clear definitions*
- ◆ What are the main problems with the novelty/contribution and/or with the paper? *Method must prove its usefulness in further case studies*
- ◆ Can the proposed approach be expected to scale to real-life problems? *In our first case study, it worked.*

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Questions?

